



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

George Janini, et al.

Application No.: 10/529,967

Filing Date: September 15, 2005

CONTIGUOUS CAPILLARY ELECTROSPRAY SOURCES AND ANALYTICAL DEVICE

Confirmation No.: 9010

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned

DATE OF DEPOSIT:

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Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

 \boxtimes In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified

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	application, within three months of the date of entry into the national stage of
	the above identified application as set forth in § 1.491, before the mailing date
	of a first Office Action on the merits of the above-identified application, or
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	In accordance with § 1.97(c), this Information Disclosure Statement is being
	filed after the period set forth in § 1.97(b) above but before the mailing date of
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\boxtimes	Copies of reference numbers 1 – 69 and 151 - 171 listed on the attached Form
	PTO-1449 are enclosed herewith.
\boxtimes	Copies of reference numbers 70 - 150 on the attached Form PTO 1449 are not
	required to be submitted pursuant to 37 CFR § 1.98(a)(2)(i).
	Copies of references - are not being submitted because
	they were previously cited by or submitted to the U.S. Patent and
	Trademark Office in patent application number, filed for

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which a claim for priority under 35 U.S.C. § 120 has been made in the instant application.

The relevance of those listed references which are not in the English language is as follows:

There are no listed references which are not in the English language.

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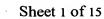
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EXAMINER

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	Form PTO-1449 Modified		Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967		
C	ited by	and Publications y Applicant heets if necessary)	Applicant George Janini, et al.			
		ent of Commerce rademark Office	Filing Date September 15, 2005	Group Not Yet Assigned		
			Confirmation No. Not Yet Assigned			
O	THER		ling Author, Title, Date,			
	Barraso, M.B., et al., "Sheathless preconcentration-capillary zone electrophoresis-mass spectrometry applied to peptide analysis," <i>J. Am. Soc. Mass Spectrom.</i> , 1999, 10, 1271-1278					
	2	Cao, P., et al., "Analysis of peptides, proteins, protein digests, and whole human blood by capillary electrophoresis/electrospray ionization-mass spectrometry using an in-capillary electrode sheathless interface," J. Am. Soc. Mass Spectrom., 1998, 9, 1081-1088				
	3	Chang, Y.Z., et al., "Sheathless capillary electrophoresis/electrospray mass spectrometry using a carbon-coated fused-silica capillary," <i>Anal. Chem.</i> , 2000 , <i>72</i> , 626-630				
	4	Analysis," Thermo Finn	igan LC/MS Application F	n LCQ [™] ; Peptide and Protein Report, 1999 , 8 pages		
	5	"Choosing the right tip: microspray and LC-MS" http://www.newobjectiv	Step 2; I am looking for P 'New Objective, e.com/technical/right_tip2	icoTips for online nanospray, 2.html, 2002, 2 pages		
	6	"Choosing the right tip: Step 2; I am looking for PicoTips for offline, static nanospray" New Objective, Inc., http://www.newobjective.com/technical/right_tip3.html, 2002, 2 pages				
	7	"Choosing the right tip: Step 3," New Objective, Inc., http://www.newobjective.com/technical/right_tip4.html, 2002, 2 pages				
	8	"Continuous-flow nanospray & LC-MS," New Objective, Inc., http://www.newobjective.com/products/silicatips.html, 2002, 2 pages				
	9	Ding, J., et al., "Recent	developments in interfaces	s and applications," Analytical		
	10	Chem. News & Features, 1999, 71, 378A – 385A Ericsson, L., et al., "Interfacing capillary electrophoresis and mass spectrometry," Summary of the ABRF Symposium at the 1996 Protein Society Meeting, 1996, http://www.abrf.org/ABRFNews/1996/December1996/CEMS.html, 6 pages				

DATE CONSIDERED

	Form PTO-1449 Modified List of Patent and Publications			Application No. 10/529,967	
Cited b	Cited by Applicant (Use several sheets if necessary)				
	U.S. Department of Commerce Patent and Trademark Office			Group Not Yet Assigned	
		Confirmati Not Yet A			
ОТНЕ	R DOCUMENTS (Includ	ling Author	, Title, Date,	Pertinent Pages, Etc.)	
11	"ESI Resources; Bibliog http://www.newobjective		•		
12	separated by capillary el	ectrophoresi	s," Anal. Cher	rometric analysis of peptides m., 1994 , <i>66</i> , 3696-3701	
13					
14	Figeys, D., et al., "Protein indentification by capillary zone electrophoresis/mecroelectrospray ionization-tandem mass spectrometry at the subfemtomole level," <i>Anal. Chem.</i> , 1996 , <i>68</i> , 1822-1828				
15	electrophoresis-microele 1996, 14, 1579-1583	ectrospray-ta	ndem mass sp	hse microextraction-capillary zone ectrometry," Nature Biotechnol.,	
16	Fuchs, O., "Solvents and Ed., Wiley Interscience,	l non-solven Brandrup, e	ts for polymer t al. (Eds.), 19	rs," <u>The Polymer Handbook, 3rd</u> 289 , 379-407	
17	Gelpi, E., et al., "Interfactechniques. An update of 253	ces for coup n recent dev	led liquid-pha elopments," <i>J</i> .	se separation/mass spectrometry Mass Spectrum., 2002, 37, 241-	
18	CE and microchip techn	ology," LC/	GC Europe, 20	ration sensitivity enhancement in 001, 1-9	
19					
20	Huber, C.G., et al., "Comparison of CE-ESI-MS and HPLC-ESI-MS for the analysis of proteins," Poster Presentation at the 23st International Symposium on High Performance Liquid Phase Separations and Related Techniques, 1999, 2 pages http://web.archive.org/web/20001014145328/http://info.uibk.ac.at/c/c7/c725/ , 2 pages				
EXAMINER			DATE CON	SIDERED	

(Use several sheets if necessary) Geo	licant rge Janini, et al.					
U.S. Department of Commerce	_					
Potent and Trademark Office Fill	ng Date ember 15, 2005	Group Not Yet Assigned				
	firmation No. Yet Assigned					
OTHER DOCUMENTS (Including A	uthor, Title, Date,	Pertinent Pages, Etc.)				
chromatography-electrospray ionization mass spectrometry of pro 161-173, http://www.ncbi.nlm.nih.g	Huber, C.G., et al., "Evaluation of volatile eluents and electrolytes for high-performance liquid chromatography-electrospray ionization mass spectrometry and capillary electrophoresis-electrospr ionization mass spectrometry of proteins. I. Liquid chromatography," J. Chromatogr. A, 1999, 849, 161-173, http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids , 1					
Huber, C.G., et al., "Evaluation of v chromatography-electrospray ionization mass spectrometry of pro 849(1), 175-189 http://www.ncbi.nlm.nih.gov/entrez	http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids, 2 pages					
Kelly, J.F., et al., "Capillary zone el flow rates: practical considerations	Kelly, J.F., et al., "Capillary zone electrophoresis-electrospray mass spectrometry at submicroliter flow rates: practical considerations and analytical performance," <i>Anal. Chem.</i> , 1997 , <i>69</i> , 51-60					
24 Kertesz, V., et al., "Minimizing Mass Spectrometry, 2001, 36,	Kertesz, V., et al., "Minimizing analyte electrolysis in an electrospray emitter," J. Mass Spectrometry, 2001, 36, 204-210					
25 Lazar.J.M., et al., "Microchip	Lazar, J.M., et al., "Microchip ESI source for capillary electrophoresis time-of-flight mass spectrometry," http://www.ornl.gov/divisions/casd/obms/asmsabs99/lazar.pdf ,					
26 LCQ Deca XP Plus, "Improved ThermoFinnigan, 2002, 4 pages	ion optics for greater	sensitivity and precision,"				
27 "LCQ™Deca XP plus," Thermo http://www.thermo.com/eTherm and	"LCQ™Deca XP plus," Thermo Finnigan, http://www.thermo.com/eThermo/CDA/Products/Product Detail/1,1075,10556-113,00.html and http://www.thermo.com/eThomo/CDA/Products/Product Popup Window/1,1088,10556-11,					
28 "LCQ TM Nanospray Ion Source, http://www.thermo.com/eTherm ,00.html, 2001, 1 page	"LCQ TM Nanospray Ion Source," <i>ThermoFinnigan</i> , <a &="" biomedical="" en<="" href="http://www.thermo.com/eThermo/CDA/Products/Product_Detail/1,1075,15857-113-X</td></tr><tr><td>http://www.thermo.com/eTherm</td><td colspan=4>http://www.thermo.com/eThermo/CDA/Technology/Technology_Detail/1,1213,113-113.00.html, 2001, 2 pages</td></tr><tr><td>30 Lee, E.D., et al., " junction="" liquid="" spectrometry,"="" td=""><th>n coupling for capilla wironmental Mass Sp</th><td>ry zone electrophoresis/ion spray mass ectrometry, 1989, <i>18</i>, 844-850</td>				n coupling for capilla wironmental Mass Sp	ry zone electrophoresis/ion spray mass ectrometry, 1989 , <i>18</i> , 844-850
EXAMINER DATE CONSIDERED						

Form PTO-1449	Docket No. NIHA-0194 E-307-2002	4/	Application No. 10/529,967		
List of Patent and F Cited by App (Use several sheets	Applicant George Janini, et al.				
U.S. Department of Patent and Traden		Filing Date September		Group Not Yet Assigned	
		Confirmati Not Yet As			
OTHER DO	CUMENTS (Includ	ding Author	Title, Date,	Pertinent Pages, Etc.)	
32 Maz nanc 33 "Mic http: 34 Moir anal; 35 Moir capii 2002	Mazereeuw, M., et al., "A novel sheathless and electrodeless microelectrospray interface for the on-line coupling of capillary zone electrophoresis to mass spectrometry," Rapid Communications in Mass Spectrometry, 1997, 11, 981-986 Maziarz, E.P., et al., "Polyaniline: a conductive polymer coating for durable nanospray emitters," J. Am. Soc. Mass Spectrom., 2000, 11, 659-663 "Microspray flow rates," New Objective, Inc., http://www.newobjective.com/products/tapertips.htlm, 2002, 1 page Moini, M., "Capillary electrophoresis mass spectrometry and its application to the analysis of biological mixtures," Anal. And Bioanal. Chem., 2002, 373, 466-480 Moini, M., et al., "Analysis of carbonic anhydrase in human red blood cells using capillary electrophoresis/electrospray ionization-mass spectrometry," Anal. Chem., 2002, 74, 3772-3776				
elect	electrophoresis to mass spectrometry interface using a split-flow technique," <i>Anal. Chem.</i> , 2001 , <i>73</i> , 3497-3501 Moseley, M.A., et al., "Coupling of capillary zone electrophoresis and apillary liquid				
chro	matography with cos spectrometry," J.	oaxial conting.,	uous-flow fas 1989 , <i>480</i> , 19	t atom bombardment tandem sector 97-209	
low- http 200					
39 "Ne http					
40 Nils	Nilsson, S., "Avdelningen för analytisk kemi," http://216.239.53.100/search?q=cache:iL5dwY6FoewC:www.analytisk.kemi.uu.se/Personal , 2001, 3 pages				
EXAMINER	,		DATE CON	NSIDERED	

Form PTO-1449 Modif	E-307-2002/0-US-03	Application No. 10/529,967			
List of Patent and Publication Cited by Applicant (Use several sheets if necessary)	Applicant				
U.S. Department of Comme Patent and Trademark Office		Group Not Yet Assigned			
	Confirmation No. Not Yet Assigned				
OTHER DOCUMEN	S (Including Author, Title, Date	, Pertinent Pages, Etc.)			
	et al., "On-line mass spectrometric				
	s," Anal. Chem., 1987 , 59, 1230-12				
	frit TM tips self-pack: Perfect for pro	•			
	wobjective.com/products/picofrit				
1 1	Petersson, M.A., et al., "New sheathless interface for coupling capillary				
	electrophoresis to electrospray mass spectrometry evaluated by the analysis of fatty acids and prostaglandins," J. Chromatogr. A, 1999, 854, 141-154				
	static nanospray," New Objective,				
l 1 1 -	http://www.newobjective.com/products/picotips offl index.html, 2002, 2 pages				
	noval, "Polyimide removal from si				
	LLC, http://www.polymicro.com/p				
46 Preisler, J., et	al., "On-line MALDI-TOF MS usir	ng a continuous vacuum deposition			
	al. Chem., 1988 , 70, 5278-5287				
	, et al., "High-performance liquid				
	ss spectrometry of single- and doub				
	illary columns," <i>Anal. Chem.</i> , 200	u, /2(18), 4386-4393, md=Retrieve&db=PubMed&list_ui			
ds, 2 pages	or.mm.mm.gov/emrez/query.regr:er	nid-Ketrieve&do-i ubivied&tist_ui			
	, "DNA variation and function," P	ublication List.			
		er pub.html, May 15, 2002, 3 pages			
	Picofrit TM columns," New Objecti				
	wobjective.com/products/picofrit_i				
		ore columns," New Objective, Inc.,			
http://www.ne	http://www.newobjective.com/products/picfrit_packed.html, 2002, 2 pages				
EXAMINER	DATE CO	NSIDERED			

Form PTO-	Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Application No. 10/529,967		
Cited b			E-307-2002/0-US-03 Applicant George Janini, et al.		
	nent of Commerce Trademark Office	Filing Date September 15, 2005	Group Not Yet Assigned		
		Confirmation No. Not Yet Assigned			
ОТНЕ	R DOCUMENTS (Incl	uding Author, Title, Da	te, Pertinent Pages, Etc.)		
51	and applications," Agi	lent Technologies, 2001,	ectrometry: practical implementation 6 pages		
52	52 Samskok, J., et al., "Optimization of capillary electrophoresis conditions for couto a mass spectrometer via a sheathless interface," J. of Mass Spectrum., 2000, 3 919-924				
53	and development," Genetic Engineering News, 2003, 23(7), pages 1 and 62				
54	Serwe, M., et al., "A comparison of CE-MS and LC-MS for peptide samples," Agilent Technologies, 2000, 6 pages				
55	Severs, J.C., et al., "Characterization of the microdialysis junction interface for capillary electrophoresis/microelectrospray ionization mass spectrometry," <i>Anal. Chem.</i> , 1997 , <i>69</i> , 2154-2158				
56	Shen, Y., et al., "High with mass spectrometr Analytical Chem., 200	efficiency nanoscale liquery using nanoelectrospray 12, 74(16), 4235-4249	id chromatography coupled on-line ionization for proteomics,"		
57	Smith, A.D., et al., "C electrophoresis outlet application of redox b	control of electrochemical electrospray emitter electroffers," Anal. Chem., 200	reactions at the capillary trode under CE/ESI-MS through the 01, 73, 240-246		
58	58 Smith, R.D., et al., "Improved electrospray ionization interface for capillary zone electrophoresis-mass spectrometry," <i>Anal. Chem.</i> , 1988, 60, 1948-1952				
59	59 Smith, R.D., et al., "Capillary zone electrophoresis-mass spectrometry using an electrospray ionization interface," <i>Anal. Chem.</i> , 1988 , <i>60</i> , 436-441				
60	Soo, E.C., et al., "The application of CE-ESI-MS to metabolomics: probing the biosynthesis of pseudaminic acid and its analogues on campylobacter jejui flagellin," NRC Institute for Biological Sciences, http://ibs-isb.nrc-cnrc.gc.ca/ibs/facilities/spectrometry_evelyn_e.html , November 24, 2004, 1-8				
EXAMINER DATE CONSIDERED					

	Form PTO-1449 Modified)-US-03	Application No. 10/529,967	
Cited by	List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		i, et al.		
	ent of Commerce rademark Office	Filing Date September 15	5, 2005	Group Not Yet Assigned	
		Confirmation Not Yet Assi			
OTHER	DOCUMENTS (Inclu				
61	http://www.thermo.com/eThermo/CDA/News/News_Detail/0,1247,10649-113,00.html, June 20, 2001, 2 pages				
62	microextraction/multistep elution/capillary electrophoresis/tandem mass spectrometry," <i>Anal. Chem.</i> , 1999 , <i>71</i> , 2270-2278				
63	Tong, W., et al., "Sensitive and high resolution CE/MS/MS for protein identification in complex mixtures," <i>Chromatographia Supplement</i> , 2001 , <i>53</i> , S90 S99				
64		mu m Id capillar	ies – analy	resis electrospray ionization mass ses of Tryptic Digests of (Abstract, 1 page)	
65	Wang, XQ., et al., "Po California Institute of The Electro, MEMS'99,	olymer-based ele Technology, Pas 1999, 6 pages	ectrospray of adena, CA,	chips for mass spectrometry," 12 th IEEE Int. Conf. on Micro	
66	Wei, W., et al., "On-lin electrophoresis with an	ne concentration etched porous j	oint,"_ <i>Ana</i>	and peptides in capillary zone <i>l. Chem.</i> , 2002 , <i>74</i> , 3899-3905	
67	7 "What does NCBI do?," National Center for Biotechnology Information, http://www.ncbi.nih.gov, News available online May 2005, 2 pages				
68	"What is electrospray?, http://www.newobjecti	ve.com/electros	pray/index.	htlm, 2002, 3 pages	
69	http://www.newobjective.com/electrospray/index.htlm, 2002, 3 pages Wilm, M., et al., "Analytical properties of the nanoelectrospray ion source," Anal. Chem., 1996, 68, 1-8				
EXAMINER		D	ATE CON	NSIDERED	

Docket No. Application No. Form PTO-1449 Modified NIHA-0194/ 10/529,967 E-307-2002/0-US-03 List of Patent and Publications Cited by Applicant Applicant (Use several sheets if necessary) George Janini, et al. U.S. Department of Commerce Filing Date Group Patent and Trademark Office September 15, 2005 Not Yet Assigned Confirmation No. Not Yet Assigned

Examiner		Document No.	Date	Name	Class	Subclass
Initial	70	No. RE. 34,757	10/18/94	Smith, et al.	204	299 R
	 	· · · · · · · · · · · · · · · · · · ·				
	71	RE. 35,102	11/28/95	Zare, et al.	204	180.1
	72	RE 36,892	10/03/00	Apffel, Jr., et al.	250	288
	73	4,708,782	11/24/87	Andresen, et al.	204	299 R
	74	4,908,116	03/13/90	Zare, et al.	204	299 R
	75	4,994,165	02/19/91	Lee, et al.	204	299R
	76	4,995,231	02/26/91	Smith, et al.	60	203.1
	77	5,073,713	12/17/91	Smith, et al.	250	282
	78	5,158,704	10/27/92	Fulton, et al.	252	309
	79	5,175,996	01/05/93	Smith	60	203.1
	80	5,192,865	03/09/93	Zhu	250	288
	81	5,238,671	08/24/93	Matson, et al.	423	397
	82	5,245,185	09/14/93	Busch, et al.	250	288
	83	5,245,186	09/14/93	Chait, et al.	250	288
	84	5,266,205	11/30/93	Fulton, et al.	210	639
EXAMINER	ι			DATE CONSIDERED		

Form PTO-1449 Modified	Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967			
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant George Janini, et al.				
U.S. Department of Commerce Patent and Trademark Office	Filing Date September 15, 2005	Group Not Yet Assigned			
·	Confirmation No. Not Yet Assigned				
II C DATENT DOCUMENTS					

Examiner Initial		Document No.	Date	Name	Class	Subclass
	85	5,267,584	12/07/93	Smith	137	13
	86	5,423,964	. 06/13/95	Smith, et al.	204	180.1
	87	5,439,578	08/08/95	Dovichi, et al.	204	299 R
	88	5,495,108	02/27/96	Apffel, Jr., et al.	250	288
	89	5,504,329	04/02/96	Mann, et al.	250	288
	90	5,505,832	04/09/96	Laukien, et al.	204	452
	91	5,523,566	06/04/96	Fuerstenau, et al.	250	282
	92	5,545,304	08/13/96	Smith, et al.	204	603
	93	5,571,398	11/05/96	Karger, et al.	204	603
	94	5,580,434	12/03/96	Robotti, et al.	204	451
	95	5,587,582	12/24/96	Henion, et al.	250	288
	96	5,750,988	05/12/98	Apffel, et al.	250	288
	97	5,788,166	08/04/98	Valaskovic, et al.	239	708
	98	5,834,772	11/10/98	Baumgardner, et al.	250	288
	99	5,840,388	11/24/98	Karger, et al.	428	26.91
	100	5,856,671	01/05/99	Henion, et al.	250	288
	101	5,868,322	02/09/99	Loucks, Jr., et al.	239	418
	102	5,877,495	03/02/99	Takada, et al.	250	288
EXAMINER	₹		<u> </u>	DATE CONSIDERED		

Form PTO-1449 Modified	Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant George Janini, et al.	
U.S. Department of Commerce Patent and Trademark Office	Filing Date September 15, 2005	Group Not Yet Assigned
	Confirmation No. Not Yet Assigned	

Examiner Initial		Document No.	Date	Name	Class	Subclass
	103	5,879,949	03/09/99	Cole, et al.	436	173
	104	5,898,175	04/27/99	Hirabayashi, et al.	250	288
	105.	5,954,959	09/21/99	Smith, et al.	210	321.78
- 1	106	5,975,426	11/02/99	Myers	239	3
	107	5,993,633	11/30/99	Smith, et al.	204	601
	108	5,997,746	12/07/99	Valaskovic	210	656
	109	6,054,709	04/25/00	Douglas, et al.	250	288
	110	6,068,749	05/30/00	Karger, et al.	204	452
	111	6,107,628	08/22/00	Smith, et al.	250	292
	112	6,110,343	08/29/00	Ramsey, et al.	204	601
	113	6,114,693	09/05/00	Hirabayashi, et al.	250	288
	114	6,147,347	11/14/00	Hirabayashi, et al.	250	288
	115	6,187,190 B1	02/13/01	Smith, et al.	210	321.78
	116	6,188,065 B1	02/13/01	Takada, et al.	250	288
	117	6,190,559 B1	02/20/01	Valaskovic	210	656
	118	6,207,954 B1	03/27/01	Andrien, Jr., et al.	250	288
	119	6,231,737 B1	05/15/01	Ramsey, et al.	204	451
	120	6,297,499 B1	10/02/01	Fenn	250	288
EXAMINER	₹			DATE CONSIDERED		

Form PTO-1449 Modified	Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant George Janini, et al.	
U.S. Department of Commerce Patent and Trademark Office	Filing Date September 15, 2005	Group Not Yet Assigned
	Confirmation No. Not Yet Assigned	

Examiner Initial		Document No.	Date	Name	Class	Subclass
	121	6,333,088 B1	12/25/01	Le Febre, et al.	428	36.91
	122	6,335,525 B1	01/01/02	Takada, et al.	250	288
-	123	6,372,353 B2	04/16/02	Karger, et al.	428	447
	124	6,379,971 B1	04/30/02	Schneider, et al.	436	89
	125	6,384,411 B1	05/07/02	Hirabayashi, et al.	250	288
	126	6,596,988 B2	07/22/03	Corso, et al.	250	288
	127	2001/0000752 A1	05/03/01	Feranzen	435	91.2
	128	2001/0010338 A1	08/02/01	Ganan-Calvo	239	8
	129	2001/0042793 A1	11/22/01	Ganan-Calvo	239	8
	130	2002/0003209 A1	01/10/02	Wood, et al.	250	282
	131	2002/0011560 A1	01/31/02	Sheehan, et al.	250	283
	132	2002/0013298 A1	01/31/02	Hunter	514	113
	133	2002/0017487 A1	02/14/02	Huang	210	635
	134	2002/0019023 A1	02/14/02	Dasseux, et al.	435	40
	135	2002/0019518 A1	02/14/02	Hansen	530	388.4
	136	2002/0037532 A1	03/28/02	Regneier, et al.	435	7.1
	137	2002/0037919 A1	03/28/02	Hunter	514	449
	138	2002/0052005 A1	05/02/02	Hansen	435	7.1
EXAMINER				DATE CONSIDERED		

Form PTO-1449 Modified	Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)	Applicant George Janini, et al.	·
U.S. Department of Commerce Patent and Trademark Office	Filing Date September 15, 2005	Group Not Yet Assigned
	Confirmation No. Not Yet Assigned	

Examiner Initial		Document No.	Date	Name	Class	Subclass
	139	2002/0052404 A1	05/02/02	Hunter, et al.	514	449
	140	2002/0055184 A1	05/09/02	Naylor, et al.	436	514
	141	2002/0060288 A1	05/23/02	Hughey, et al.	250	281
	142	2002/0066857 A1	06/06/02	Hughey, et al.	250	281
	143	2002/0072126 A1	06/13/02	Chervet, et al.	436	161
	144	2002/0100714 A1	08/01/02	Staats	210	85
	145	2002/0110919 A1	08/15/02	Wienkers, et al.	436	56
-	146	2002/0119202 A1	08/29/02	Hunter, et al.	424	501
	147	2002/0119505 A1	08/29/02	Goshe, et al.	435	7.92
	148	2002/0121444 A1	09/05/02	Lee, et al.	204	613
	149	2002/0121598 A1	09/05/02	Park	250	288
	150	2003/0089601A1	05/15/03	Ding, et al.	204	298.2
EXAMINE	₹			DATE CONSIDERED		

Docket No. Application No. Form PTO-1449 Modified NIHA-0194/ 10/529,967 E-307-2002/0-US-03 List of Patent and Publications **Applicant** Cited by Applicant (Use several sheets if necessary) George Janini, et al. U.S. Department of Commerce Filing Date Group Patent and Trademark Office September 15, 2005 Not Yet Assigned Confirmation No. Not Yet Assigned

FOREIGN PATENT DOCUMENTS

Examiner				Translation		
Initial		Document No.	Date	Country	YES	NO
	151	WO 96/33405 A1	10/24/96	PCT		
	152	WO 98/35226 A1	08/13/98	PCT		
	153	WO 01/61338 A1	08/23/01	PCT		
	154	WO 01/91158 A2	11/29/02	PCT		
	155	WO 01/99158 A2	11/29/01	PCT		
	156	WO 2004/038752 A3	05/06/04	PCT		
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EXAMINER	'			DATE CONSIDER	RED	

			-1449 Modified	Docket N NIHA-01 E-307-20		Application No. 10/529,967
Patent and Trademark Office September 15, 2005 Not Yet Assigned	Cite	d b	y Applicant	_ -		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) 157 "Application note PF-1," New Objective, Inc., www.newobjective.com, downloade from Internet October 2002, 2 pages 158 Ashcroft, A.E., "An introduction to mass spectrometry," Mass Spectrometry, http://www.astbury.leeds.ac.uk/Facil/MStut/mstutorial.htm., downloaded from Internet October 14, 2002, 1-25 159 "Capillary electrophoresis theory and background," CE Theory, http://www.ceandeec.com/cetheory.htm, downloaded from Internet September 16, 2002, 21 pages 160 "CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 pages 161 "Electrospray tips from new objective," Scientific Instrument Services, Inc., http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Internet April 4, 2003, 2 pages 162 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages 163 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page 164 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page 165 Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from				_		-
157 "Application note PF-1," New Objective, Inc., www.newobjective.com, downloade from Internet October 2002, 2 pages 158 Ashcroft, A.E., "An introduction to mass spectrometry," Mass Spectrometry, http://www.astbury.leeds.ac.uk/Facil/MStut/mstutorial.htm,, downloaded from Internet October 14, 2002, 1-25 159 "Capillary electrophoresis theory and background," CE Theory, http://www.ceandcec.com/cetheory.htm, downloaded from Internet September 16, 2002, 21 pages 160 "CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 page 161 "Electrospray tips from new objective," Scientific Instrument Services, Inc., http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Internet April 4, 2003, 2 pages 162 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages 163 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page 164 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page 165 Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from				1		
from Internet October 2002, 2 pages 158 Ashcroft, A.E., "An introduction to mass spectrometry," Mass Spectrometry, http://www.astbury.leeds.ac.uk/Facil/MStut/mstutorial.htm,, downloaded from Internet October 14, 2002, 1-25 159 "Capillary electrophoresis theory and background," CE Theory, http://www.ceandcec.com/cetheory.htm, downloaded from Internet September 16, 2002, 21 pages 160 "CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 page 161 "Electrospray tips from new objective," Scientific Instrument Services, Inc., http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Internet April 4, 2003, 2 pages 162 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages 163 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page 164 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page 165 Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from	ОТН	Œ	R DOCUMENTS (Includ	ling Author	r, Title, Date, l	Pertinent Pages, Etc.)
158 Ashcroft, A.E., "An introduction to mass spectrometry," Mass Spectrometry, http://www.astbury.leeds.ac.uk/Facil/MStut/mstutorial.htm,, downloaded from Internet October 14, 2002, 1-25 159 "Capillary electrophoresis theory and background," CE Theory, http://www.ceandcec.com/cetheory.htm, downloaded from Internet September 16, 2002, 21 pages 160 "CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 page "Electrospray tips from new objective," Scientific Instrument Services, Inc., http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Internet April 4, 2003, 2 pages 162 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages 163 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page 164 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page 165 Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from	15	57				w.newobjective.com, downloaded
http://www.astbury.leeds.ac.uk/Facil/MStut/mstutorial.htm,, downloaded from Internet October 14, 2002, 1-25 159 "Capillary electrophoresis theory and background," CE Theory, http://www.ceandcec.com/cetheory.htm, downloaded from Internet September 16, 2002, 21 pages 160 "CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 pages 161 "Electrospray tips from new objective," Scientific Instrument Services, Inc., http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Internet April 4, 2003, 2 pages 162 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages 163 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page 164 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page 165 Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from	15	50				otani ?? Mara Carattani
159 "Capillary electrophoresis theory and background," CE Theory, http://www.ceandcec.com/cetheory.htm, downloaded from Internet September 16, 2002, 21 pages 160 "CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 pages 161 "Electrospray tips from new objective," Scientific Instrument Services, Inc., http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Internet April 4, 2003, 2 pages 162 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages 163 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page 164 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page 165 Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from		00	http://www.astbury.leeds	s.ac.uk/Faci		
160 "CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 page 161 "Electrospray tips from new objective," Scientific Instrument Services, Inc., http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Internet April 4, 2003, 2 pages 162 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages 163 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page 164 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page 165 Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from	15	59	"Capillary electrophoresis theory and background," <i>CE Theory</i> , http://www.ceandcec.com/cetheory.htm , downloaded from Internet September 16,			
http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Internal April 4, 2003, 2 pages 162 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages 163 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page 164 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page 165 Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from	16	60	"CE-MS," www.agilent.com, downloaded from Internet September 16, 2002, 3 p			ternet September 16, 2002, 3 pages
 "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified of Internet September 11, 2001, 5 pages "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from 	16	61	http://www.sisweb.com/lc/new-objective/picofrit.htm, downloaded from the Intern April 4, 2003, 2 pages "Electrospray ion trap mass spectrometry; Introduction," http://www.colby.edu/chemistry/instruments/ElectrosprayIntro.pdf, last modified			
 "Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg, downloaded from the Internet September 14, 2002, 1 page "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from 	16	62				
 "Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169, downloaded from the Internet October 14, 2005, 1 page Liu, H., et al., "A 96-channel microdevice for high throughput electrospray ionization mass spectrometry (ESI/MS)," The Barnett Institute, no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html, downloaded from 	16	63	"Flexible fused silica capillary tubing," http://www.polymicro.com/images/tubepage.jpg , downloaded from the Internet			
ionization mass spectrometry (ESI/MS)," <i>The Barnett Institute</i> , no date available, http://www.geocities.com/ResearchTriangle/Lab/4688/ht-ms.html , downloaded from	16	54	"Life sciences/chemical analysis," Agilent Technologies, http://www.chem.agilent.com/scripts/peakprint.asp?Page=1169 , downloaded from			
uio intornot Ootobol 17, 2003, 1-13	16	65				
McComb, et al., "Biomolecule characterization by CE-ESI/TOFMS and CE-ESI/MS/MS," http://www.physics.umanitoba.ca/~ens/McComb_CE.pdf , downloaded from the Internet 2002, 2 pages	16	56	McComb, et al., "Biomolecule characterization by CE-ESI/TOFMS and CE-ESI/MS/MS," http://www.physics.umanitoba.ca/~ens/McComb CE.pdf,			
Murphy, J.P., III, et al., "Improved nanospray emitter coatings for nanospray LC-MS," http://www.newobjective.com , downloaded from the Internet 2002, 2 pages	16	167 Murphy, J.P., III, et al., "Improved nanospray emitter coatings for nanospray LC-				
EXAMINER DATE CONSIDERED	EXAMINER				DATE CONS	SIDERED

Form PTO-1449 Modified			Docket No. NIHA-0194/ E-307-2002/0-US-03	Application No. 10/529,967	
(Use se	Cited b veral s	t and Publications by Applicant heets if necessary)	Applicant George Janini, et al.		
		nent of Commerce Frademark Office	Filing Date September 15, 2005	Group Not Yet Assigned	
-			Confirmation No. Not Yet Assigned		
0	THEF	R DOCUMENTS (Includ	ing Author, Title, Date	, Pertinent Pages, Etc.)	
	168	Nanobore gradient LC/MS and MS/MS using POROS® packed picoFrit TM emitters for femtomole sensitivity peptide analysis," <i>New Objective</i> , www.newobjective.cor downloaded from the Internet 2002 , 2 pages			
	169	"Nanospray on the Thermo Finnigan LCQ," <i>ThermoFinnigan</i> , http://www.thermo.com/eThermo/CDA/Applications/Application_Detail/1,1210,PR EVIEW-10125-113,00.html , downloaded from the Internet September 14, 2002 , 2 pages			
	170	Schmidt, A., et al., "Effect of flow rates on analyte ion signals in nano-ESI MS," <i>Institute for Pharmaceutical Chem., Germany</i> , no date available, http://www.iachem.de/MPL372.pdf , downloaded from the Internet 2002 , 2 pages			
	171	"Technical Note PF-3; U	sing PicoFrit columns w Objective, Inc., www.ne	vith the micromass Z-spray TM ewobjective.com, downloaded from	
EXAMINER			DATE CO	NSIDERED	